

PATENT COOPERATION TREATY

From the Japan Patent Office (INTERNATIONAL SEARCHING AUTHORITY)

PCT

To: Agent of Applicant

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WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY
(Implementing Regulation 40 bis)
(PCT Rule 43bis.1)

<p>Applicant's or agent's file reference F556PCT</p>		<p>Date of mailing (day/month/year) 21. 09. 2004</p> <p>FOR FURTHER ACTION</p> <p>See paragraph 2 below</p>	
<p>International application No. PCT/JP2004/007175</p>	<p>International filing date (day/month/year) 26. 05. 2004</p>	<p>Priority date (day/month/year) 03. 06. 2003</p>	
<p>International Patent Classification (IPC) Int. Cl⁷ H01L 23/02, H03H 9/25</p>			
<p>Applicant Murata Manufacturing Co., Ltd.</p>			

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220

3. For further details, see notes to Form PCT/ISA/220

<p>Date of completion of this opinion 06. 09. 2004</p>			
<p>Name and mailing address of the ISA/JP Japan Patent Office 3-4-3, Kasumigaseki, Chiyoda-ku, Tokyo 100-8915, Japan</p>	<p>JPO Examiner (Authorized officer) Takuya IMAI Telephone No. 03-3581-1101 Ext. 3469</p>		
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; text-align: center;">4R</td> <td style="width: 10%; text-align: center;">9169</td> </tr> </table>		4R	9169
4R	9169		

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Box No. I	Basis of this opinion
<p>1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.</p> <p><input type="checkbox"/> This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purpose of international search (under Rules 12.3 and 23.1(b)).</p> <p>2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:</p> <p>a. type of material</p> <p><input type="checkbox"/> a sequence listing</p> <p><input type="checkbox"/> table(s) related to the sequence listing</p> <p>b. format of material</p> <p><input type="checkbox"/> in written format</p> <p><input type="checkbox"/> in computer readable form</p> <p>c. time of filing/furnishing</p> <p><input type="checkbox"/> contained in the international application as filed.</p> <p><input type="checkbox"/> filed together with the international application in computer readable form.</p> <p><input type="checkbox"/> furnished subsequently to this Authority for the purposes of search.</p> <p>3. <input type="checkbox"/> In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.</p> <p>4. Additional comments:</p>	

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Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement														
<p>1. Statement</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; vertical-align: top; padding: 5px;">Novelty (N)</td> <td style="width: 50%; vertical-align: top; padding: 5px;">Claims 1-5</td> <td style="width: 25%; vertical-align: top; padding: 5px;">YES</td> </tr> <tr> <td style="vertical-align: top; padding: 5px;">Inventive step (IS)</td> <td style="vertical-align: top; padding: 5px;">Claims</td> <td style="vertical-align: top; padding: 5px;">NO</td> </tr> <tr> <td style="vertical-align: top; padding: 5px;">Industrial applicability (IA)</td> <td style="vertical-align: top; padding: 5px;">Claims 1-5</td> <td style="vertical-align: top; padding: 5px;">YES</td> </tr> <tr> <td style="vertical-align: top; padding: 5px;"></td> <td style="vertical-align: top; padding: 5px;">Claims</td> <td style="vertical-align: top; padding: 5px;">NO</td> </tr> </table> <p>2. Citations and explanations:</p> <p>Document 1: JP 2002-170895 A (Kyocera Corporation), June 14, 2002 [Claim 1], [Claim 2], [0013] to [0022], and [0024]</p> <p>Document 2: JP 7-50360 A (NGK Spark Plug Co., Ltd.), February 21, 1995 [Claim 1], [0011] and [0012], and [0018]</p> <p>Document 3: JP 9-266263 A (Sumitomo Metal (SMI) Electronics Devices Inc.), October 7, 1997 [Claim 1] to [Claim 4]</p> <p>Document 4: JP 2002-198761 A (Murata Manufacturing Co., Ltd.), July 12, 2002 [0048] to [0057]</p> <p>Document 1 describes a technology relating to the technical field of a seam welding. In the description of the technology, when a metal frame 2 is brazed to an insulating base 1, the width W2 of the short side of the metal frame is set to be smaller than the width W1 of the long side of the metal frame.</p> <p>In the technology described in Document 2, when widths of a metal layer (5) on which a solder layer is provided along each side of a ceramic plate (2) are represented by a width W1 of parts along vertical sides (3,3) and a width W2 of parts along horizontal sides (4,4), the relationship of W1 > W2 is satisfied.</p> <p>In the technology described in Document 3, a lid (1) for sealing an electronic component package has a rectangular shape and the lid (1) is bonded with a solder layer (9) via a metal underlayer (7). In this case, a width w3 of the metal underlayer at the short side part (13) is set to be smaller than a width w2 of the metal underlayer at the central part (12) of the long side.</p> <p>In the technology described in Document 4, a frame-shaped metal layer (6i) surrounding interdigital transducers (3,4) is provided and the metal layer is connected to a ground potential.</p> <p>Claims 1 to 5</p> <p>The documents cited in the international search report neither describe nor suggest the structure wherein when the difference in expansion in the x direction between an element and a substrate is represented by Q_x and the difference in expansion in the y direction between the element and the substrate is represented by Q_y, in each of a first frame-shaped electrode, a second frame-shaped electrode, and a solder sealing frame, the width of a strip-shaped part extending in the direction in which the larger difference in expansion is generated between the differences Q_x and Q_y in expansion is smaller than the width of a strip-shaped part extending in the direction in which the smaller difference in expansion is generated between the differences Q_x and Q_y in expansion.</p>				Novelty (N)	Claims 1-5	YES	Inventive step (IS)	Claims	NO	Industrial applicability (IA)	Claims 1-5	YES		Claims	NO
Novelty (N)	Claims 1-5	YES													
Inventive step (IS)	Claims	NO													
Industrial applicability (IA)	Claims 1-5	YES													
	Claims	NO													

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Box No. VI	Certain documents cited			
1. Certain published documents (Rules 43bis.1 and 70.10)				
Application No. Patent No.	Publication date (day/month/year)	Filing date (day/month/year)	Priority date (valid claim) (day/month/year)	
JP2003-188294A "E, A"	04. 07. 2003	21. 12. 2001		
2. Non-written disclosures (Rules 43bis.1 and 70.9)				
Kind of non-written disclosure	Date of non-written disclosure (day/month/year)	Date of written disclosure referring to non-written disclosure (day/month/year)		